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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/896,254

06/29/2001

Joseph L. Hellerstein

YOR920010334US1

9174

7590 10/16/2008
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EXAMINER

NGUYEN, NGA B

ART UNIT

PAPER NUMBER

3692

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/896,254	Applicant(s) HELLERSTEIN ET AL.	
	Examiner Nga B. Nguyen	Art Unit 3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 28, 2008 has been entered.
2. Claims 1-39 are pending in this application.

Response to Arguments/Amendment

3. Applicant's arguments with respect to claims 1-39 have been fully considered but are not persuasive.

In response to the applicant's arguments that Chaar does not disclose "*the financial optimization being specified in the electronic contract at the time of construction such that, at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an operation for computing particular financial metric*", examiner submits that Chaar disclose in column 1, line 15 through column 2, line 50 that the financial optimization being specified in the electronic contract at the time of construction (*a SLA is a monetary legal contract that specifies the minimum expectations and obligations that exist between a service provider and a service recipient. The SLA includes: description of service, start date and duration of*

Art Unit: 3692

service, pricing and payment terms, terms and conditions for service, etc.). Chaar also discloses at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an operation for computing the particular financial metric, in column 4, lines 30-50, the Cross-SLA event manager that receives the monitoring events, determines which one or more SLA contracts are affected by the events and generates one or more SLA-specific service-level managements events to one or more SLA-specific SLA management objects (SMOs). The SMOs track the events according to each of the respective SLA contracts, determine how to allocate/deallocate/configure SLA management resources and determine the effect of those resource management actions on the service system operation to assure the contracted quality of service, in column 6, lines 50-65, the Cross-SLA Resource Manage handles resource allocation request submitted by SMOS and optimizes the allocation of available computing and people resources based upon the provider's SLA management objectives for all of the established SLA contracts. Therefore, Chaar does discloses "the financial optimization being specified in the electronic contract at the time of construction such that, at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an operation for computing particular financial metric."

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 21-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent, a method/process claim must (1) be tied to another statutory class of invention (such as a particular apparatus) (see at least *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (see at least *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972)). A method/process claim that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter. Here claims 25-38 fail to meet the above requirements because they are not tied to another statutory class of invention. Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. See *Benson*, 409 U.S. at 71-72. As *Comiskey* recognized, "the mere use of the machine to collect data necessary for application of the mental process may not make the claim patentable subject matter." *Comiskey*, 499 F.3d at 1380 (citing *In re Grams*, 888 F.2d 835, 839-40 (Fed. Cir. 1989)). Incidental physical limitations, such as data gathering, field of use limitations, and post-solution activity are not enough to convert an abstract idea into a statutory process. In other

Art Unit: 3692

words, nominal or token recitations of structure in a method claim do not convert an otherwise ineligible claim into an eligible one. Claims 21-24 recites "computer-based apparatus" but contain "mere software" (electronic contract manager module, electronic contract agent modules).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Chaar et al (hereinafter Chaar), U.S. Patent No. 6,857,020.

Regarding to claim 1, Chaar discloses apparatus for use in managing a service level associated with resources in a distributed information technology (IT) system based on financial terms, the apparatus comprising:

at least one processor operative to: (i) construct and maintain an electronic contract that contains information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in one or more financial terms; and (ii) measure at least one service level of at least one element of the IT system in terms of

Art Unit: 3692

one or more business metrics based on the electronic contract and based at least in part on input received from at least one agent module located in the at least one distributed element (*column 7, lines 42-48; column 8, lines 20, the service access controllers, the SLA-specified service-level monitors; column 5, line 45-column 6, line 33, SLA manager comprises one Cross-SLA Event Manager (CSEM), one SLA Management Object (SMO), **every SMO determines and executes** service management actions, the actions can be performed by **one or more service management agents**. Thus, **SMO is an agent module** located in **SLA manager (a distributed element)** measures the operation of that distributed element in terms of business metrics based on the electronic contract.*); (iii) determine at least one financial optimization based at least in part on the measured at least one service level of at least one element of the IT system and base at least in part on the electronic contract (*column 6, lines 48-65, the CSEM handles resource allocation requests **submitted by SMO** and optimizes the allocation of available computing and people resources based upon the provider's SLA management objectives for all of the established SLA contracts*), the financial optimization being specified in the electronic contract at the time of construction such that, at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an operation for computing particular financial metric (*column 1, line 15-column 2, line 50, a SLA is a monetary legal contract that specifies the minimum expectations and obligations that exist between a service provider and a service recipient. The SLA includes: description of service, start date and duration of*

Art Unit: 3692

service, pricing and payment terms, terms and conditions for service, etc.; column 4, lines 30-50, the Cross-SLA event manager that receives the monitoring events, determines which one or more SLA contracts are affected by the events and generates one or more SLA-specific service-level managements events to one or more SLA-specific SLA management objects (SMOs). The SMOs track the events according to each of the respective SLA contracts, determine how to allocate/deallocate/configure SLA management resources and determine the effect of those resource management actions on the service system operation to assure the contracted quality of service; column 6, lines 50-65, the Cross-SLA Resource Manage handles resource allocation request submitted by SMOS and optimizes the allocation of available computing and people resources based upon the provider's SLA management objectives for all of the established SLA contracts); (iv) issue at least one control command based on the at least one financial optimization, the command to be executed on the at least one disturbed element by the at least one agent module located in the at least one distributed element (column 8, lines 30-40, the SLA manager determined and executes service management action plans based upon the terms and conditions specified in the established e-business SLA contract); and

memory, operatively coupled to the at least one processor, for storing at least one of the electronic contract and results of the measurement operation (column 7, lines 49-50, establishing e-business SLA contract).

Regarding to claim 2, Chaar further discloses wherein the measuring operation comprises monitoring one or more IT parameters and evaluating results in terms of the one or more business metrics (column 6, lines 5-15).

Regarding to claim 3, Chaar further discloses wherein the evaluating operation is performed in real time or at a subsequent time (column 8, lines 15-20).

Regarding to claim 4, Chaar further discloses wherein the measuring operation comprises accumulating a historical collection of IT data and evaluating results in terms of the one or more business metrics (column 10, lines 3-14).

Regarding to claim 5, Chaar further discloses wherein the measuring operation comprises collecting measurement data from one or more sources, combining the collected measurement data, and interpreting the collected measurement data in terms of the one or more business metrics (column 9, lines 40-60).

Regarding to claim 6, Chaar further discloses wherein the measurement operation comprises monitoring hardware characteristics of the IT system (column 11, lines 1-10).

Regarding to claim 7, Chaar further discloses wherein the hardware characteristics comprise at least one of temperature and power consumption (column 6, lines 5-15).

Regarding to claims 8-9, Chaar further discloses wherein the measurement operation comprises monitoring software characteristics of the IT system, wherein the software characteristics comprise at least one of bandwidth usage, availability, response time, and latency (column 6, lines 5-15).

Regarding to claim 10, Chaar further discloses wherein the IT system comprises a collection of hardware and software intended to store or deliver data in a digital form (column 11, lines 1-10).

Regarding to claim 11, Chaar further discloses wherein the one or more business metrics comprise a measurement that directly measures the performance of a business (column 10, lines 30-35).

Regarding to claim 12, Chaar further discloses wherein the measurement comprises at least one of an operational cost, customer satisfaction, and relative industry performance (column 10, lines 10-35).

Regarding to claims 13-14, Chaar further discloses wherein the one or more business metrics are converted to one or more financial equivalents, wherein the one or more financial equivalents comprises at least one of a cost of each lost connection, a cost per second of down time, and a relationship between revenue and network latency (column 11, lines 18-23).

Regarding to claim 15, Chaar further discloses wherein results of the one or more business metrics are used to set IT parameters (column 11, lines 23-35).

Regarding to claim 16, Chaar further discloses wherein the one or more business metrics are reported to one or more parties (column 7, lines 10-35).

Regarding to claim 17, Chaar further discloses wherein the one or more business metrics are aggregated so as to obscure details reported to a third party (column 7, lines 10-35).

Regarding to claim 18, Chaar further discloses wherein reporting is performed in financial terms based on the electronic contract (column 11, lines 23-35).

Regarding to claim 19, Chaar further discloses wherein enactment is performed based on financial optimizations using the electronic contract (column 11, lines 23-35).

Regarding to claim 20, Chaar further discloses wherein the one or more business metrics to monitor are inferred from the electronic contract (column 11, lines 23-35).

Regarding to claim 21, Chaar discloses computer-based apparatus for use in managing a service level associated with resources in a distributed information technology (IT) system based on financial terms, the apparatus comprising:

an electronic contract manager module operative to construct and maintain an electronic contract that contains information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in one or more financial terms and to determine at least one financial optimization based at least part on the measured at least one service level of at least one element of the IT system and based at least in part on the electronic contract(column 5, line 45 through column 6, line 65, SLA manager comprises one Cross-SLA Event Manager (CSEM), one SLA Management Object (SMO), **every SMO determines and executes** service management actions, the actions can be performed by **one or more service management agents**. Thus, **SMO is an agent module** located in **SLA manager (a distributed element)** measures the operation of that distributed element in terms of business metrics based on the electronic contract. Moreover, the CSEM handles resource allocation requests

submitted by SMO and optimizes the allocation of available computing and people resources based upon the provider's SLA management objectives for all of the established SLA contracts.); and

one or more electronic contract agent modules, operatively coupled to the manager module located in one or more elements of the IT system being monitored, operative to measure at least one service level of at least one element of the IT system in terms of one or more business metrics based on the electronic contract and to execute at least one control command based at least in part on at least on the at least one distributed element (column 8, lines 30-40, the SLA manager determined and executes service management action plans based upon the terms and conditions specified in the established e-business SLA contract).

Regarding to claim 22, Chaar further discloses an electronic contract authoring system, operatively coupled to the manager module, operative to construct one or more electronic contracts that contain information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in the one or more financial terms (column 10, lines 48-60).

Regarding to claim 23, Chaar further discloses wherein the manager module is further operative to: (i) identify one or more business transactions; (ii) compute one or more transaction service levels; and (iii) compute one or more business metrics based on the one or more service levels; and (iv) reporting results associated with the one or more business metrics (column 8, lines 30-40).

Regarding to claim 24, Chaar further discloses wherein the manager module is further operative to: (i) identify one or more business transactions; (ii) forecast the one or more transactions over an enactment interval; (iii) predict performance and determine optimizations based on financial criteria; and (iv) initiate actions based on the predicted performance and the determined optimizations (column14, lines 45-65).

Claims 25-39 contain similar limitations found in claims 1-20 above, therefore, are rejected by the same rationale.

Conclusion

8. Claims **1-39** are rejected.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Nga B. Nguyen whose telephone number is (571) 272-6796. The examiner can normally be reached on Monday-Thursday from 9:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Kambiz Abdi, can be reached on (571) 272-6702.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3600.

10. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Art Unit: 3692

Alexandria, VA 22313-1450

Or faxed to:

(703) 273-8300 (for formal communication intended for entry),

or

(571) 273-6796 (for informal or draft communication, please label "PROPOSED" or "DRAFT").

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nga B. Nguyen/
Primary Examiner, Art Unit 3692

October 10, 2008

Application/Control Number: 09/896,254
Art Unit: 3692

Page 14